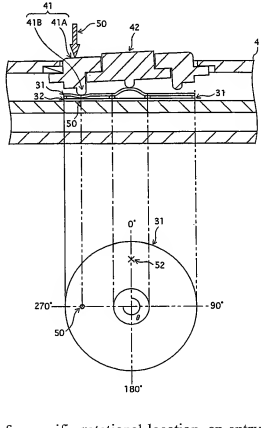
REMARKS

We claim a directional input device that can be utilized in a relatively simply manner by an operator to input electronic signals in a quick and efficient manner without adding any unnecessary complex mechanical structure.

A circular disc operating member 41 is capable of rotating and being depressed to identify a specific location, such as a portion 50. A signal is generated identifying the specific location such as 270°. A central button 42 can be pressed downward to provide an entry for selecting the particular position.

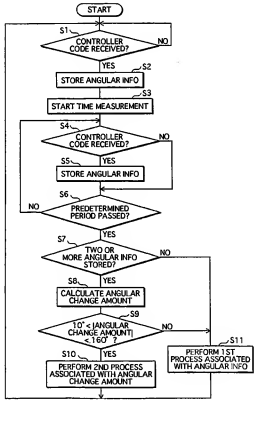
FIG.3



Upon the selection of a specific rotational location, an entry controller code is generated that is responsive to the angular information to identify a particular operation to be executed.

As is graphically seen in the flowchart of Figure 6, it is possible to enter and store two or more pieces of angular information and by using a timeline, plus for example, an algorithm to minimize erroneous movements (hand shaking), the structure in Figure 3 is utilized to perform an expected conventional entering of a signal based on, for example, a lookup table associated with the first angular information and additionally with the same structure, provide a second processing associated with the second angular information within a predetermined time period that is entered to produce an appropriate controlled response, see steps S11 and S10.

FIG.6



Claim 1 increases the number of processes executable with a directional input unit that is (1) usable to make a directional input and (2) unusable to make a rotational input by a user. This advantageous effect is achieved by associating each direction available for input with a process

to be executed and also associating each amount of change between two directional input successively made within a predetermined time period with a process to be executed.

It should be noted that if a directional input unit is usable to make both directional and rotational inputs or to make a relatively large number of different input operations, there is no need to calculate an amount of change (i.e., rotational amount in a rotational direction) between two directional inputs. Naturally, there is no need to switch between a process associated with each of the two directional inputs and a process associated with the rotational amount, depending on whether the rotational amount falls within a predetermined range.

The Office Action contends that *Goldenburg et al.* discloses an operating member that is usable to make a directional input and unusable to make a rotational input by a user (Element A).

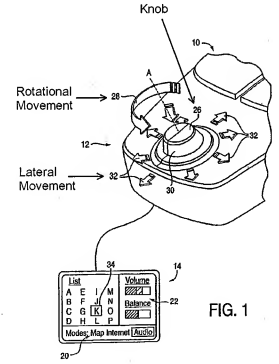


FIG. 1

Goldenburg et al. states as follows:

> In the described embodiment, knob 26 rotates in a single rotary degree of freedom about an axis extending out of the knob, such as axis A, as shown

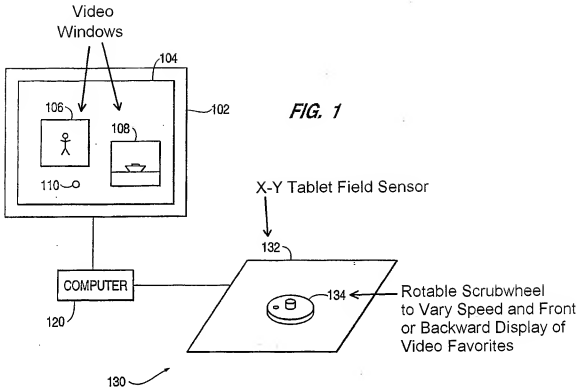
> by arrow 28. The user preferably grips or contacts the circumferential surface of the knob 26 and rotates it a desired amount. Colum 3, Lines 128-23.
>
> The knob 26 is preferably able to be moved by the user in one or more directions in a plane approximately perpendicular (orthogonal) to the axis A of rotation ("transverse" or "lateral" motion). Column 5, Lines 28-35.

Thus, *Goldenburg et al.* teaches an operating member 26 usable by a user to make a directional input as well as to make a rotational input. *Goldenburg et al.* does not disclose an operating member that is usable to make a directional input and unusable to make a rotational input.

Goldenburg et al. discloses that in response to an input specifying a direction, a process associated with the direction is executed, and that in response to a rotational input, a process associated with the amount of rotation is executed. *Goldenburg et al.* is silent on any configuration for calculating an amount of change between two successively made directional inputs and switching, depending on the calculated change of amount, a process associated with each of the two directional inputs and a process associated with the calculated amount of change.

Thus, *Goldenburg et al.* fails to disclose Elements A-D of Claim 1.

The *Fitzmaurice et al.* reference taught a video editing system capable of using one scrub wheel to move video sequences forward or backward at various speeds.



The scrubwheel has characteristics of a computer mouse but with an active sensing tablet 132 that can sense the location of a position indicator 204 such as a coil to change the electromagnetic field produced by the tablet. See Column 3, Lines 49 to 55. The computer can determine the position of multiple windows or screens having edible video sequences and the scrubwheel is moved to a position on the tablet corresponding to a window. See Figure 1, windows 106, 108.

The cursor 110, equivalent to the position of the coil 204 automatically enables a rotation of video sequences in an editing mode by the scrubwheel.

As shown in Figure 3, an outer dial 302 (206, Figure 2) carries a position signal or indicator 208 wherein a degree of movement of the wheel determines the speed and direction of display of the video images.

The *Fitzmaurice et al.* reference only provides a user interface system in the form of a scrubwheel, where an X-Y coordinate movement of the scrubwheel body by itself determines a chosen location on a window wherein a rotating wheel enables by rotation, a directional input of a front or backward moving of the images with the rotation of the wheel. It must, however, be usable to provide such a rotational input by the user and the respective different directions are only two, a clockwise or counterclockwise direction, and the degree of movement simply indicates the speed of flipping images.

There is no teaching of a calculating unit or a judging unit or a processing unit defined by Claim 1 above. Accordingly, *Fitzmaurice et al.* fails to teach fully the contents of respective Element A through Element D of Claim 1.

Finally, the *Mukai et al.* reference is directed to a touch panel that permits a pen to input a signal in a particular area by a double tap operation. The pressure employed for putting in the first tap is greater than the pressure employed for the second tap. See Paragraph [0005].

Clearly, *Mukai et al.* fails to disclose Element A, namely an operating member usable to make a directional input and unusable to make a rotational input of our Claim 1. While *Mukai et al.* suggests tapping a pen on a touch screen at different pressures within a predetermined time period, it does not teach switching, in response to two successive directional inputs with a process associated with each directional input and a process associated with an amount of a change.

Accordingly, *Mukai et al.* would also fail to correct the deficiencies of the prior references for the features set forth in Elements B-D of Claim 1. None of the cited references alone or in combination disclose a directional input unit as defined in Element A that would permit a user to make a directional input and being unusable to make a rotational input by the

user, nor does it disclose any configuration capable of providing the claimed features of Elements B-D for increasing the number of processes executable by manually operating the directional input unit, even when the number of directions available for input with the directional input unit is limited.

As set forth above, *Goldenburg et al., Fitzmaurice et al.,* and *Mukai et al.* collectively do not teach any directional input unit (Element A of Claim 1) usable to make a directional input and unusable to make a rotational input by a user, nor any configuration (Elements B-D of Claim 1) for increasing the number of processes executable by manually operating the directional input unit, although the number of directions available for input with the directional input unit is limited.

As noted in the MPEP at §2143.02:

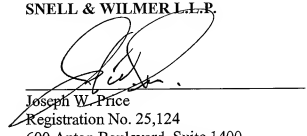
> A rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. *KSR International Co. v. Teleflex Inc.,* 550 U.S. ___, ___, 82 USPQ2d 1385, 1395 (2007); *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ 449, 453 (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 62-63, 163 USPQ 673, 675 (1969); *Great Atlantic & P. Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152, 87 USPQ 303, 306 (1950). (underline added)

According to Claim 1, having a directional input unit usable to make a directional input and unusable to make a rotational input by a user, each direction available for input with the directional input unit is associated with a special process to be executed and each range of amount of change is associated with a specific process to be executed. By virtue of this configuration, Claim 1 achieves an increase in the number of processes executable by manually

operating the directional input unit although the number of directions available for input with the directional input unit are limited.

Very truly yours,

SNELL & WILMER L.L.P.



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